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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/782,287	02/19/2004	Jei-Fu Shaw	70002-104001	4293
69713 7590 12/14/2010 OCCHIUTI ROHLICEK & TSAO, LLP 10 FAWCETT STREET CAMBRIDGE, MA 02138				
EXAMINER				
KIM, TAEYOUN				
ART UNIT		PAPER NUMBER		
1651				
NOTIFICATION DATE		DELIVERY MODE		
12/14/2010		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

INFO@ORTPATENT.COM

Office Action Summary

Application No.

10/782,287

Applicant(s)

SHAW ET AL.

Examiner

Taeyoon Kim

Art Unit

1651

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-16, 18-20, 31-36, 45, 47, 48 and 53-56 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-16, 18-20, 31-36, 45, 47, 48 and 53-56 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 10/14/10
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Applicant's amendment and response filed on 10/14/2010 has been received and entered into the case.

Claims 1-13, 17, 21-30, 37-44, 46 and 49-52 have been canceled, and claims 14-16, 18-20, 31-36, 45, 47, 48 and 53-56 have been considered on the merits. All arguments have been fully considered.

The claim rejection under 35 U.S.C. §112 has been withdrawn due to the amendment.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 14-16, 18-20, 31-36, 45, 47, 48 and 53-56 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Shaw et al. (of record) in view of Seidman et al. (of record) in further view of Jones et al. (of record), Nutrition Facts on glutinous rice (of record), Javanainen et al. (1995, Biotechnology Techniques) and Skory et al. (of record) for the same reason set forth in the previous Office Action mailed on 7/14/2010.

Applicant argued that none of the references cited even mentions growing microorganisms, thus providing no suggestion or whatsoever that would have led those of ordinary skill to grow a microorganism in a glucose-rich syrup with protein removed. Applicant particularly focused on the teaching of Skory et al. which describe fermentation using

Aspergillus and *Rhizopus* grown in YPM. The teaching of Skory et al. combined with the teaching of Shaw et al. is the use of particular microorganisms to produce ethanol. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicant further asserted that the newly added reference of Javanainen does not disclose removal of proteins from the barley flour medium, so the medium indeed includes proteins. This is not persuasive since applicant argues against the reference individually as discussed above. The claim rejection under 35 U.S.C. § 103 was not based solely on Javanainen, rather the teaching of Javanainen was combined to discuss a possibility of culturing microorganism without nitrogen sources.

Still further, applicant discussed the previously filed declaration which alleged that the amount of nitrogen is scarce in rice. As discussed in the previous OA. Based on the teaching by Javanainen that microorganisms can be grown without nitrogen source, it is expected that a person of ordinary skill in the art would use the grow microorganism utilizing glucose-rich syrup of Shaw et al.

The argument of applicant is mainly based on the use of nitrogen-deficient glucose-rich syrup "as is" for fermentation or culturing microorganisms. It is noticed that applicant alleged the glucose-rich syrup of the claimed invention without nitrogen because the removal of insoluble materials including protein coagulates. However, there is no evidence whatsoever the glucose-rich syrup of the claimed invention lacks nitrogen. According to Cadmus et al. (1966), the

production of glucose syrup from various grains resulted in nitrogen solubilized in the syrup as well as the solids (see abstract, Table V and p.666). Cadmus et al. also disclose at p.666 that:

“Glucose syrups produced by enzymatic hydrolysis of various cereal grains and flours were substituted for crystalline glucose in several different fermentations. Table VI shows the effect of the glucose syrups on the production of citric and 2-ketogluconic acids by fermentation. The results show that glucose syrups made from sorghum, corn, or corn flour can satisfactorily substitute for both crystalline glucose and inorganic nitrogen in the production of these acids.”

Based on the teaching of Cadmus et al., a person of ordinary skill in the art would not conclude that the glucose-rich syrup of Shaw et al. is considered “without nitrogen”, and a person of ordinary skill in the art would certainly use the product of Shaw et al. for fermentation and/or culture of microorganisms.

Considering the above discussion, the holding of the claim rejection under 35 U.S.C. §103 is a must.

Conclusion

No claims are allowed.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Taeyoon Kim whose telephone number is (571)272-9041. The examiner can normally be reached on 8:00 am - 5:00 pm ET (Mon-Thu).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Wityshyn can be reached on 571-272-0926. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Taeyoon Kim/
Primary Examiner, Art Unit 1651